

APPENDIX J

*CALFED Bay-Delta Program
Appendices - Phase 1 Summary Report*

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APPENDIX J - PROCESS FOR REFINING ALTERNATIVES

Appendix A presented the process for formulating alternatives. This process focused on the steps to:

1. Identify Problems
2. Define Objectives
3. Identify Actions
4. Develop Alternative Formulation Strategies
5. Assemble Preliminary Alternatives Corresponding to Alternative Formulation Strategies

These steps led to formulation of the 32 starting point ("edge" alternatives) summarized in Appendix H and the 100 draft single focus alternatives summarized in Appendix I.

Step 6 of the process, Refine Alternatives, was not discussed in detail in Appendix A. This step includes the refinements necessary to move from the 100 preliminary alternatives to a smaller set of viable alternatives for use in Phase II evaluations. This refinement process included several incremental sets of alternates as they were refined from the 100 to 31, to 20 and to 10 draft alternatives. This process is briefly discussed below.

31 COMBINED ALTERNATIVES

The 100 preliminary alternatives were developed using various approaches for combining actions to address the four primary conflicts in the Bay-Delta system. These consist of core actions supplemented by actions targeted at resolving one of the four major conflicts. Because each is targeted at one of the major conflicts, the preliminary alternatives are not likely to be stand-alone alternatives that accomplish all the primary objectives and resolve the four conflicts. Instead, they provide insight about the best ways to combine approaches into alternatives that do meet the objectives of the CALFED Bay-Delta Program.

The teams looked for ways to combine these single focus alternatives into ones that addressed all the conflict areas in a more balanced way. The goal was to combine two or more single focus alternatives in ways that they complement one another. Duplicate actions within a combined alternative were eliminated. Also, actions that were redundant or not compatible with the combined alternative were eliminated.

The combined alternatives represent the range of the 100 preliminary alternatives but are more balanced from the perspective of resolving the four problem areas described in Appendix B. The

result was 31 combined alternatives. Summaries of these combined alternatives are included in Appendix K.

20 Draft Alternatives

Four teams, including both consultants and CALFED Bay-Delta Program staff, were assigned to refine the 31 combined alternatives. These teams were organized by conflict area: fisheries/diversions, water quality/land use, beneficial uses of water, and land use/flood protection/habitat. The teams again looked for ways to combine and balance the alternatives. For example, one alternative centered on the "chain-of-lakes" concept for improving export water quality and another centered on the "chain-of-lakes" from the beneficial water use perspective. Since these two alternatives were very similar in many regards, they were combined into one alternative. By this process, the 31 combined alternatives were reduced to 20. These 20 draft alternatives include the range represented by the 100 preliminary alternatives and the 31 combined alternatives but are more balanced from the perspective of resolving the four problem areas described in Appendix B.

In refining the alternatives, some basic changes to the alternative development process were made. Both the fisheries/diversions team and the land use/flood protection/habitat team developed three modules of actions representing three distinct levels of implementation of improvements. The ecosystem modules include a basic level (containing a substantial amount of ecosystem restoration), a moderate level (containing more extensive ecosystem restoration efforts), and a high level (containing very extensive ecosystem restoration efforts). Similarly, the land use/flood protection/habitat team developed three modules containing different levels of levee protection. The first level would protect the highest priority islands in the Delta to U. S. Army Corps of Engineers PL 99 levels (PL 99), and upgrade all other levees to Hazard Mitigation Plan (HMP) standards; the second level would protect high and moderate priority islands to PL 99 levels and upgrade all other levees to HMP standards; and the third level would protect all critical western Delta islands, all islands with important regional infrastructure, and all islands containing valuable habitat at the PL 99 level, and upgrade all other levees to HMP standards. The water quality group developed three levels of implementation of pollution control: highest priority pollutant source control, more extensive pollutant source control, and increase instream flows to dilute pollutants.

While these modules proved to be a useful way to construct alternatives, the selection of actions for each alternative was based on the specific nature of each alternative.

These 20 draft alternatives represent only a step, albeit an important one, in the process of developing a short list of supportable Bay-Delta solutions. Summaries of these draft alternatives are included in Appendix L.

10 DRAFT ALTERNATIVES

The Program has combined the best elements of the 20 draft alternatives to produce 10 draft alternatives.

The 10 draft alternatives are the result of a consolidation and refinement of the 20 draft alternatives presented during meetings in February 1996. The 20 draft alternatives represented a broad range of potential solutions to Bay-Delta problems. We received considerable valuable written and verbal input on the "20" resulting from the discussions during the public workshop, the February meeting of the Bay-Delta Advisory Council, and meetings with CALFED agency staff. The Program staff considered this input, evaluated the alternatives against the Program objectives, looked for ways to refine the alternatives, and to consolidate similar alternatives.

The consolidation and refinement was *not* a screening process. We did not eliminate any concepts represented by the "20". The 10 draft alternatives represent the same broad range of potential solutions to Bay-Delta problems as represented by the 20 draft alternatives. Summaries of these draft alternatives are included in Appendix L.

PHASE II ALTERNATIVES

The final step in refining the draft alternatives was to develop 3 to 5 alternatives for analysis in Phase II. This process was heavily influenced by public and agency comments received during scoping in April, May, and June 1996. Appendix P outlines that process and presents 3 Phase II Alternatives.